

Notice of Allowability

Application No.

10/680,861

Examiner

Cheukfan Lee

Applicant(s)

JONES, ARLIN R.

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed September 28, 2006.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Cheukfan Lee

1. Claims 1-12 are allowed. Claims 1, 5, 7, and 10 are independent.

2. The following is an examiner's statement of reasons for allowance:

Claim 1 as amended includes limitations of claim 3. Claim 3 was indicated allowable if rewritten in independent form. Claim 1 is allowable over the prior art of record because the closest prior art Tom et al. (U.S. Patent No. 6,369,918) does not disclose a step of moving the optical sensor in the first direction, in which the object moves in the decelerating step, for a first distance substantially equal to a sum of an acceleration distance of the object and a deceleration distance of the object, and a step of moving the first section of the object, from which first reflected light is already measured during the decelerating of the object, past the optical sensor at the first substantially constant speed in the first direction while measuring second reflected light from the first section of the object, in combination with other limitations of claim 1.

Claims 2-4 depend on claim 1, directly or indirectly.

Claim 5, now in independent form, is allowable for a reason similar to that given for claim 1. Claim 5 requires "moving the object in a second direction, opposite the first direction, for a first distance substantially equal to a sum of an acceleration distance of the object and a deceleration distance of the object", and "moving the first section of the object past the optical sensor at the first substantially constant speed in the first direction while measuring second reflected light from the first section of the object". These steps in combination with other limitations of claim 5 are not taught by the prior

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art of record, including the closest prior art reference Tom et al. (U.S. Patent No. 6,369,918).

Claim 6 depends on claim 5.

Claim 7, now in independent form, is allowable for a reason similar to that given for claim 5. Claim 7 requires “moving the optical sensor in a second direction, opposite the first direction, for a first distance substantially equal to a sum of an acceleration distance of the optical sensor and an acceleration distance of the object”, and “moving the optical sensor in the first direction at a second substantially constant speed for a second distance substantially equal to a sum of the acceleration distance of the object and the deceleration distance of the object while measuring second reflected light from the first section of the object”. These steps in combination with other limitations of claim 7 are not taught by the prior art of record, including the closest prior art reference Tom et al. (U.S. Patent No. 6,369,918).

Claims 8 and 9 depend on claim 7.

Claim 10, now in independent form, is allowable for a reason similar to those given for claims 5 and 7. Claim 10 requires “moving the optical sensor in the first direction for a first distance substantially equal to a sum of an acceleration distance of the optical sensor and a deceleration distance of the object”, and “moving the optical sensor in a second direction, opposite the first direction, at a second substantially constant speed for a second distance substantially equal to a sum of the deceleration

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distance of the object and an acceleration distance of the object while measuring second reflected light from the first section of the object". These steps in combination with other limitations of claim 10 are not taught by the prior art of record, including the closest prior art reference Tom et al. (U.S. Patent No. 6,369,918).

Claims 11 and 12 depend on claim 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Cheukfan Lee
October 13, 2006